



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,273	03/16/2004	Jaime E. Garcia	JK01488A	2972

28268 7590 08/25/2006

THE BLACK & DECKER CORPORATION
701 EAST JOPPA ROAD, TW199
TOWSON, MD 21286

EXAMINER

LANDRUM, EDWARD F

ART UNIT	PAPER NUMBER
----------	--------------

3724

DATE MAILED: 08/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/801,273

Applicant(s)

GARCIA ET AL.

Examiner

Edward F. Landrum

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 17-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, and 17-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4, 6, 7, 24, 26, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stumpf et al (U.S Patent No. 5,943,931), hereinafter Stumpf, in view of Hurn et al (U. S Patent No. 5,850,698), hereinafter Hurn.

Regarding claims 1, and 24, Stumpf teaches (see Figure 1) a miter saw (10) comprising a base (12), a work piece-positioning fence (32 and 34) attached to the base (12), a cutting assembly (around 16) pivotally attached to the miter saw. A motor (20) is drivingly connected to the arbor of the saw blade (16) and configured so as to not contact any portion of the base when the mitering at least 45 degrees from a plane substantially perpendicular to the work piece positioning fence (see Figure 7, 21c, and 21d).

Regarding claims 4, and 29, Stumpf teaches (see Figure 1) the casing enclosing the driving assembly (attached to motor 20) appears to be tapered in relation to the base.

Regarding claims 6, and 24, Stumpf teaches (see Figure 1) a turntable (14) pivotally mounted to the base (12; also see Col. 4, lines 50-53).

Art Unit: 3724

Regarding claim 7, Stumpf teaches (Col. 4, lines 29-30) the miter saw is a sliding compound miter saw that can bevel (see Figure 7).

Regarding claim 26, Stumpf teaches (see Figure 1) the saw is a sliding compound miter saw and therefore the periphery of the blade is capable of being equal to the interface between the support surface and the positioning fence on the work piece positioning side. Furthermore the length of the cutting assembly when in the full cut position is capable of being of a length of approximately 77% of the diameter of the saw blade.

Regarding claim 30, Stumpf teaches (see Figure 4) the pivot point of the cutting assembly (below and to the left of motor 20) is further away from the base (12) than the center of rotation of the circular saw blade.

Stumpf teaches all of the elements of the current invention as stated above except the use of a gear assembly and a motor orientated substantially perpendicular to the miter saw.

Hurn teaches (see Figure 2) a motor (15) oriented substantially perpendicular to an arbor (21) in a circular saw. A gear assembly is used to transfer the rotational power of the motor to the saw blade (28).

It would have been obvious to have modified Stumpf to incorporate the teachings of Hearn to use an established method of transferring the rotational motion generated by the motor to the saw blade while still allowing the saw blade to bevel to the degree that was originally presented by Stumpf.

3. Claims 2, 3, 17, 18, 20-22, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified device of Stumpf in view of Avakian (U.S Patent No. 3,611,859).

The modified device of Stumpf teaches all of the elements of the current invention as stated above except for the gear assembly containing a helical and bevel gears as well as a jackshaft.

Avakian teaches (Col. 2, lines 20-27) a helical gear set, one of which is mounted on a shaft (74) which drives a bevel gear to transfer rotational motion from one section of the machine to another section.

It would have been obvious to have modified the modified device of Stumpf to incorporate the teachings of Avakian to incorporate a helical/bevel gear assembly with a jack shaft between each assembly for the purpose of transferring rotational motion generated by the motor, which is offset from the rotational axis of the saw, to the arbor and still allow the location of the motor to not interfere with the ability of the saw to bevel.

4. Claims 5, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified device of Stumpf, as stated in section 3, in view of Hollinger et al (U.S Patent No. 6,615,701), hereinafter Hollinger.

The modified device of Stumpf teaches all of the elements of the current invention as stated above except for a trunnion being disposed between the cutting assembly and the turntable so as to permit the cutting assembly to bevel with respect to the base.

Hollinger teaches (Col. 4, lines 50-51; also see Figure 4) a trunnion (32) mounted between the base and the cutting assembly.

It would have been obvious to have modified the modified device of Stumpf to incorporate the teachings of Hollinger to use a trunnion for the purpose of allowing the cutting assembly to easily be moved to different angular orientations with respect to the base so a user could use the saw to make a variety of different cuts.

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over the modified device of Stumpf, as stated in section 4, in view of Hollinger et al (U.S Patent No. 6,615,701), hereinafter Hollinger.

The modified device of Stumpf teaches all of the elements of the current invention as stated above except for a trunnion being disposed between the cutting assembly and the turntable so as to permit the cutting assembly to bevel with respect to the base.

Hollinger teaches (Col. 4, lines 50-51; also see Figure 4) a trunnion (32) mounted between the base and the cutting assembly.

It would have been obvious to have modified the modified device of Stumpf to incorporate the teachings of Hollinger to use a trunnion for the purpose of allowing the cutting assembly to easily be moved to different angular orientations with respect to the base so a user could use the saw to make a variety of different cuts.

6. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over the modified device of Stumpf, as stated in section 4, in view of Burrows et al (U.S Patent No. 3,447,577), hereinafter Burrows.

The modified device of Stumpf teaches all of the elements of the current invention as stated above except for a flange being used to attach a circular saw blade to the arbor, wherein the gear box terminates adjacent the flange.

Burrows teaches (see Figure 4) the use of flanges (47 and 48) and the casing for the gear assembly terminates adjacent the flanges.

It would have been obvious to have modified the modified device of Stumpf to incorporate the teachings of Burrows to use a flange to attach the saw blade to the arbor to strengthen the connection between the arbor and the saw blade as well as prevent the saw blade from wiggling. Ending the gear box adjacent the flange would decrease the distance between the saw making the saw more compact and easier for a user to handle.

Response to Arguments

7. Applicant's arguments filed 7/14/2006 have been fully considered but they are not persuasive.

Regarding applicant's remarks about the whether Stumpf and Hurn are combineable, the rejection is an equivalence argument. Stumpf already teaches moving the motor to prevent the motor from contacting the positioning fence. Hurn only teaches an alternate motive means. One of ordinary skill in the art would the equivalence of gear and belt drives, especially since Ide et al (U.S Patent No. 5,357,834), which was listed below as pertinent to the applicant's disclosure, uses a gear drive for the same purpose of the belt drive shown in Stumpf.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ito et al (U.S Patent No. 5,357,834), Brunson et al (U.S Publication No. 2001/0042429), Brunson (U.S Patent No. 6,474,206), Sasaki et al (U.S Patent No. 5,564,323), Bergler (U.S Patent No. 4,537,105), and Itzov (U.S Patent No. 5,865,079) all teach miter saws including various elements of the disclosed invention.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward F. Landrum whose telephone number is 571-272-5567. The examiner can normally be reached on Monday-Friday 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3724

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EFL
8/8/2006



BOYER D. ASHLEY
SUPERVISORY PATENT EXAMINER